

Appendix C. Habitat variables estimated at sample sites where habitat surveys were conducted in Madison River tributaries.

Variable name	Units (precision)	Description
% Pool habitats	percent (0.1%)	Proportion of the length of habitats within the sample section in pool habitats expressed as a percentage
% Riffle habitats	percent (0.1%)	Proportion of the length of habitats within the sample section in riffle habitats expressed as a percentage
% Run habitats	percent (0.1%)	Proportion of the length of habitats within the sample section in run habitats expressed as a percentage
Wetted width	ft (0.1 ft)	Average wetted width of the sample section from numerous measurements
Channel width	ft (0.1 ft)	Average channel width of the sample section from numerous measurements to bankfull level
Average depth	in (1 in)	Average depth of each habitat unit within the sample section
Thalweg pool depth	in (1 in)	Average thalweg depth of pool habitats in sample section
Residual pool volume	cubic feet (0.1 cubic ft)	Average residual pool volumes of pools in sample section using methods from Lisle (1987).
% boulder	percent (0.1%)	Proportion of the streambed's surface in boulder (>10 inch), expressed as a percentage, within the sample section.
% cobble	percent (0.1%)	Proportion of the streambed's surface in cobble (2.5 to 10 inch), expressed as a percentage, within the sample section.
% large gravel	percent (0.1%)	Proportion of the streambed's surface in large gravel (0.6 to 2.5 inch), expressed as a percentage, within the sample section.
% small gravel	percent (0.1%)	Proportion of the streambed's surface in small gravel (0.08 to 0.6 inch), expressed as a percentage, within the sample section.
% sand	percent (0.1%)	Proportion of the streambed's surface in sand (0.005 to 0.08 inch), expressed as a percentage, within the sample section.
% silt	percent (0.1%)	Proportion of the streambed's surface in silt (<0.005 inch), expressed as a percentage, within the sample section.

Small woody debris frequency	frequency (0.1/mile)	Frequency of small (≤ 6 inch diameter) woody debris within the defined channel in the sample section.
Large woody debris frequency	frequency (0.1/mile)	Frequency of large (> 6 inch diameter) woody debris within the defined channel in the sample section.
Small woody debris frequency across channel	frequency (0.1/mile)	Frequency of small (≤ 6 inch diameter) woody debris across the wetted channel in the sample section.
Large woody debris frequency across channel	frequency (0.1/mile)	Frequency of large (> 6 inch diameter) woody debris across the wetted channel in the sample section.
Amount of spawning habitat	frequency (0.1 sq m/mile)	Frequency of spawning habitats within the sample section. Spawning habitats were defined as gravels (0.08 to 2.5 inches in diameter) occupying at least 1.0 sq ft of streambed surface.
Instream cover rank	Rank	Amount of instream (within water) cover ranked as: 1-3=low; 4-6=moderate; and 7-9=high. Cover was defined as ability to hide fish from surface observation.
Pool habitat quality rank	Rank	Quality of pool habitats ranked as: 1-3=low; 4-6=moderate; and 7-9=high.
Bank habitat condition rank	Rank	Condition of streambanks regarding stability and ability to provide cover: 1-3=low; 4-6=moderate; and 7-9=high.
Riparian habitat use rank	Rank	Relative use of riparian vegetation within the streambank area by livestock and wildlife: 1-3=low; 4-6=moderate; and 7-9=high.